

This page is mainly introduced the X 2 Cr 11 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X 2 Cr 11, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel X 2 Cr 11

X 2 Cr 11 Standard Number:

ITEM	Standard Number	Descriptions
1	DIN 5512-3	Materials for rail vehicles - Steels - Part 3: Stainless steel flat products; Selected standard

X 2 Cr 11 Chemical composition (mass fraction) (wt.%)

Chemical				Min.(%)				Max.(%)			
C								0.03			
Si								1.00			
Mn								1.50			
P								0.040			
S								0.015			
Cr				10.5				12.5			
Ni				0.30				1.00			
N								0.030			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta		
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other		

Stainless steels - Technical delivery conditions for drawn wire
 Ferritic stainless steel

X 2 Cr 11 Physical Properties

Tensile strength	115-234	σ_b /MPa
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Yield Strength	23	$\sigma_{0.2} \geq / \text{MPa}$
Elongation	65	$\delta 5 \geq (\%)$
ψ	-	$\psi \geq (\%)$
Akv	-	$Akv \geq / \text{J}$
HBS	123-321	-
HRC	30	-

X 2 Cr 11 Mechanical Properties

Tensile strength	231-231	σ_b / MPa
Yield Strength	154	$\sigma_{0.2} \geq / \text{MPa}$
Elongation	56	$\delta 5 \geq (\%)$
ψ	-	$\psi \geq (\%)$
Akv	-	$Akv \geq / \text{J}$
HBS	235-268	-
HRC	30	-

X 2 Cr 11 Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

X 2 Cr 11 Range of products

Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil / Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED

We can produce Specialsteel the specifications follows: